

in the promising phase; (11) *accepted total price (base currency)* - computed total price for acceptance line-item expressed in the fulfillment server base currency, likely to have been computed in the promising phase; (12) *accepted unit price (customer currency)* - unit price for the acceptance line-item expressed in customer-preferred currency, likely to have been computed in promising phase; (13) *accepted total price (customer currency)* - computed total price for the acceptance line-item expressed in the customer-preferred currency, likely to have been computed in promising phase; (14) *acceptance line-item status* - logical parameter that fulfillment server 16 updates based on the corresponding component promise status and which indicates whether request line-item succeeded or failed in getting an appropriate acceptance; (15) *failure reason* - brief description of reason for the failed acceptance, if any; (16) *date shipped* - date and time acceptance line-item was shipped, if any; and (18) *date canceled* - date and time acceptance line-item was canceled, if any.

In one embodiment, the acceptance line-item delivery is an object having the following attributes or otherwise supporting the following information, in any suitable combination and without limitation: (1) *acceptance line-item delivery ID* - assigned at fulfillment server 16 and may be identical to the *quotation delivery line-item ID*; (2) *acceptance quantity* for the acceptance line-item delivery; (3) *promised ship date*; (4) *customer delivery date*; (5) *promised lot* - lot identifiers associated with acceptance line-item delivery; and (6) *promised attributes* - list of category/attribute combinations for acceptance line-item delivery.

Process Acceptance [Fulfillment Server]

In one embodiment, acceptance 50 is an object specifying the status of each of the promise line-items as accepted, rejected, canceled, or queued. Fulfillment server 16 indicates the status on the corresponding component promises 44, filters acceptances from rejections on a line-item basis, and then generates component acceptances 52 for submission to LFM 22. Fulfillment server 16 may also update the status of component ATP requests 32 as appropriate.

Process Component Acceptances [LFM]

When LFM 22 receives component acceptances from fulfillment server 16, it generates and executes an acceptance transaction in the syntax appropriate to the ATP server 14 and associated planning engine. This transaction is similar to the originating component quotation confirmation 42 except that it creates a formal acceptance to the existing promise 46. LFM 22 records the confirmation responses from ATP server 14 and sends corresponding component acceptance confirmations 54 back to fulfillment server 16 using network 18.

Process Component Acceptance Confirmations [Fulfillment Server]

Once fulfillment server 16 has processed and sent component acceptances 52 to LFM 22, it monitors the completion of resulting component acceptance confirmations 54. In one embodiment, acceptance confirmation 56 is considered complete when each of the component acceptances 52 has received one or more component acceptance confirmations 54. When fulfillment server 16 has received all component acceptance confirmations 54 and the acceptance confirmation 56 is complete, fulfillment server 16 sends the final acceptance confirmation 56, including all valid component acceptance confirmations 54, to client 12 using network 18.

ATP Request Changes Workflow

In this workflow, client 12 queries an active ATP request 30, changes some or all portions of ATP request 30, and re-submits ATP request 30 to fulfillment server 16. Fulfillment server 16 then brokers the changed ATP request 30 across the distributed network of LFMs 22 and manages any non-conforming responses. For example, client 12 may re-quote the order in whole or in part with the intention of improving the promised quantities or the delivery dates associated with ATP request 30. Client 12 may also query an active ATP request and then cancel the ATP request 30, in which case fulfillment server 16 must propagate this cancellation to each of the LFMs 22 handling a portion of ATP request 30. In one embodiment, the cancellation effectively deletes ATP request 30 at each location of data persistence, including appropriate LFMs 22 and fulfillment server 16.

Initiate ATP Request Changes [Client]

Once ATP request 30 has been displayed at client 12 through inquiry, the user may be able to enter an "edit request" mode. In this mode, the user is able to change the request in any appropriate manner, for example, adding or deleting request line-items, changing required quantities and dates, or adjusting the associated business constraints. Client 12 or the user then re-submits the changed ATP request 30 or queues the changed ATP request 30 for future re-submission (re-quote). In one embodiment, if ATP request 30 has been completely fulfilled, changes may not be made. If ATP request 30 has been partially fulfilled, only request line-items that are still pending may be changed.

Process ATP Request Changes [Fulfillment Server]

Fulfillment server 16 evaluates the re-submitted ATP request 30 and determines the changes that have been made to any portion of the request structure (i.e. request, request line-item, or request line-item delivery). For changed portions of ATP request 30, fulfillment server 16 revises existing component ATP requests 32 accordingly. This may involve re-evaluating any sourcing, alternate or substitution, or other preferences as well as the specified business constraints. The changes may also include adding or individual request line-items. Once fulfillment server 16 has completed these revisions, resulting component ATP requests 32 are again sent out onto network 20 for servicing at LFM 22. The status of each component ATP request 32 may be set to "pending quotation" or "pending cancellation," as appropriate.

Process Component ATP Requests [LFM]

When LFM 22 receives changed component ATP request 32 from fulfillment server 16, LFM 22 generates and executes a request transaction in a syntax appropriate to ATP server 14 and the associated planning engine. At this point, changed component ATP request 32 is processed to ATP server 14 as though it was a new component ATP request 32. Any component ATP request cancellation may be processed to ATP server 14 as a deletion.